

Tennessee Pollution Prevention Partnership Success Story



Bridgestone/Firestone North
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Air Quality Improvement

The Member

Bridgestone/Firestone North American Tire, LLC, (BFNT) LaVergne plant began manufacturing truck and bus tires in 1972. In 1988 an expansion added passenger car tire production to the facility. The plant employs approximately 1800 team members involved in producing thousands of passenger, truck and bus tires each day. BFNT company-wide has been dedicated to environmental excellence and continuous improvement as demonstrated by all of our North American tire plants achieving ISO 14001 certification by the year 2000. BFNT LaVergne is also a member of the EPA National Environmental Performance Track program. We continue to look for opportunities to eliminate and reduce waste, conserve energy, and prevent pollution.

The Story

The original LaVergne tire plant was built in 1972, when the tire curing process used hot water and steam to heat and expand a bladder, which pressed the tires into their molds. Hot water and steam requires a large amount of heat to keep the curing process at the correct temperature to vulcanize, or cure the tires. Using nitrogen gas to inflate the bladder requires much less heat input to carry out the vulcanization process.

The Success

The TBR nitrogen gas curing conversion project was initiated to conserve energy, and improve air quality. The project consisted of converting 78 TBR curing presses from the hot water system over to the nitrogen curing system. This project involved removing the piping that delivered hot water to the curing presses, and replacing it with piping to deliver nitrogen. This project took 11 months to complete, and cost \$1,200,000. One of the results of this project was the reduction in natural gas burned in the facility's boilers. The air quality improvements realized by the reduction in natural gas used in the boilers are:

- NO_x Emissions were reduced by approximately 4 tons per year
- CO₂ Emissions were reduced by approximately 9,800 tons per year.

The Pollution Prevented

This project has allowed the facility to reduce NO_x emissions by approximately 4 tons, and CO₂ emissions by 9,800 tons per year. These reductions are achieved from the reduction in natural gas used as a fuel in the facility's boilers.

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